

In re Application of:

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Application No.: 09/636,778

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PATENT

Atty Docket No.: DIVER1280-4

method for enriching for target DNA sequences containing at least a partial coding region for at least one specified activity in a DNA sample. The method includes a) co-encapsulating in a micro-environment a mixture of target DNA obtained from a mixture of organisms with a mixture of DNA probes comprising a detectable marker and at least a portion of a DNA sequence encoding at least one enzyme having a specified enzyme activity; b) incubating the co-encapsulated mixture under such conditions and for such time as to allow hybridization of complementary sequences; and c) screening for the specified activity.

Please enter the following rewritten priority data:

This application is a continuation and claims the benefit of priority under 35 USC § 120 of U.S. application Serial No. 09/098,206, filed June 16, 1998, now issued as US 6,174,673, which is a continuation-in-part of U.S. Patent Application No. 08/876,276, filed June 16, 1997.

IN THE CLAIMS:

Please cancel claims 72 and 73 without prejudice.

Please enter the following rewritten claims:

54. (Amended) A method of identifying a molecule that modulates the activity of a target cell component comprising co-encapsulating the molecule and a cell expressing a target cell component of interest and a detectable marker, in a microenvironment under conditions that allow the molecule and the target cell component to interact, and detecting an effect of the molecule on the activity of the cell component, thereby identifying a molecule that modulates the activity of the target cell component.
55. (Amended) The method of claim 54, wherein the molecule is an enzyme or small molecule.